# A Study on the impact of information sources and product involvement on consumers' purchasing intention

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**Abstract.** With the widespread popularity and deep penetration of social media worldwide, consumers increasingly rely on recommendations from key opinion leaders (KOLs) and ordinary users when making purchasing decisions. To further explore the behavioral mechanisms behind this phenomenon, this article innovatively adopts a 2 × 2 inter group experimental design, focusing on the Chinese social media user group. Through rigorous questionnaire surveys and data analysis, 232 representative sample data points were successfully collected. The study focuses on the interactive effects of information source types (KOL recommendations vs. regular user recommendations) and product engagement (high engagement vs. low engagement) on consumer purchase intention. The experimental results showed that the influence of information source type, product engagement, and their interaction on purchase intention did not reach a statistically significant level; However, it is worth noting that brand familiarity exhibits a significant positive driving effect, while the frequent use of e-commerce platforms unexpectedly suppresses purchase intention. This study provides a new perspective for understanding the consumer decision-making logic in the social media environment, and helps companies to optimize their marketing strategies accurately.

## 1 Introduction

With the surge in social media platform users, companies' marketing strategies are gradually shifting from traditional advertising to influencer marketing based on social networks. To fully leverage the communication advantages of social platforms, an increasing number of companies are promoting their brand information through influencers on social media to maximize marketing effects [1]. Among the many sources of information, key opinion leader (KOL) have become a crucial tool for companies to build trust and enhance their brand image due to their professionalism and influence. However, in recent years, some KOLs have been questioned by public opinion for false propaganda. In China, many Internet celebrities have been punished for promoting misleading products, further weakening consumers' trust in KOL-recommended content. In addition, studies have pointed out that although popular

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KOLs can bring traffic and attention, relying solely on their influence may lead to a waste of budget. Therefore, when choosing KOLs, brands should pay more attention to comprehensive factors, such as their content style, user reviews, and platform activity [2].

In this context, user-generated content (UGC) has gradually attracted attention. Compared with commercial KOL recommendations, content shared by ordinary users based on real experiences is considered more credible and persuasive, especially in high-involvement product areas such as skin care and beauty. Consumers are more inclined to believe the honest opinions expressed by "people like themselves" rather than standardized promotional statements. Related research shows that UGC effectively stimulates consumers' positive emotions and willingness to buy by enhancing emotional resonance and perceived value [3].

From a theoretical perspective, the credibility of information sources has a key impact on consumer decision-making. According to source credibility theory, consumers are more likely to believe information from highly credible sources and thus judge it to be more effective and persuasive [4]. In the social media environment, KOLs typically influence consumers based on their professional authority, whereas UGC fosters trust through authentic expression and emotional resonance. Additionally, product involvement has a significant impact on the way consumers process information. High-involvement products tend to stimulate systematic and rational cognitive processing, while low-involvement products rely more on heuristic judgments and the influence of peripheral cues [4].

Although KOL and UGC have received widespread attention, their influence mechanisms in different product involvement scenarios lack systematic empirical support. There is currently no clear evidence to show whether the type of information source has a differentiated effect in high-involvement and low-involvement products, which also limits the brand's fine management of content strategy and audience matching.

To fill the above research gap, this paper adopts a 2 (information source type: KOL and ordinary users) $\times$ 2 (product involvement: high and low) between-group experimental design, simulates the social media marketing scenario, randomly assigns 232 Chinese social media users to four experimental groups, and collects questionnaire data.

This study aims to examine the impact of information source type on consumer purchase intention, and further analyze the moderating effect of product involvement, while examining the effects of control variables such as brand familiarity and frequency of e-commerce platform use. Previous studies have shown that social media marketing activities and customer experience have a significant impact on customer behavior (such as purchase intention, loyalty intention, and participation intention), revealing the mediating role of relationship quality, which helps to deeply understand the formation process of consumer psychology and behavior mechanisms in the social media environment [5].

The research results not only provide empirical support for academic research but also offer practical guidance for enterprises to develop more effective marketing strategies. In the context of increasingly diversified information dissemination and the continuous reconstruction of consumer trust, understanding the relationship between different information sources and user characteristics is crucial for enhancing the credibility and effectiveness of social media marketing.

## 2 Literature review

With the rapid popularization of social media, key opinion leader (KOL) marketing has become a crucial means of promoting brands. KOLs are often seen as a key factor in enhancing consumer trust and stimulating purchasing intentions due to their professionalism and broad influence. However, in recent years, some social media KOLs with vast influence have been punished for promoting false or non-compliant products, triggering widespread public doubts about the authenticity and credibility of their disseminated content. For

example, in China, two well-known Internet celebrities were fined millions of RMB each for falsely advertising food, becoming a representative case of the credibility crisis of social platforms. This phenomenon has prompted companies to pay more attention to the credibility of information sources and consumers' perceived responses when formulating marketing strategies.

At the same time, general user-generated content (UGC) has been gaining more and more attention on e-commerce platforms (such as Xiaohongshu), especially in high-involvement product categories such as skin care products and cosmetics. Compared to the commercial recommendations of KOLs, UGC is often considered more credible by consumers due to its authenticity, closeness, and spontaneity, prompting brands to reevaluate the potential value of UGC in marketing communications.

From the perspective of academic research, existing literature indicates that the type of information source has a significant impact on consumers' willingness to purchase [6]. KOLs can enhance consumers' trust and acceptance of brands due to their professional background, while UGC has a unique advantage in influencing consumer decisions through authenticity and community identity [3]. In addition, product involvement, as an important variable for measuring consumers' attention and involvement in products, has been shown to moderate the impact of information sources on purchasing behavior [7]. However, there remains a lack of systematic empirical research on the moderating relationship between information source type and product involvement in academia, particularly in real-world social media marketing contexts.

Therefore, this paper aims to systematically investigate the differences in the impact of KOL recommendations and ordinary user recommendations on consumer purchase intention under various product involvement conditions, focusing on the main effect of information source type and the moderating effect of product involvement. The study is expected to fill the relevant theoretical gaps and provide practical insights for enterprises in formulating differentiated marketing strategies, optimizing social platform content, and targeting advertising.

## 3 Research Methods

### 3.1 Experimental design and data collection method

This study uses an online experiment and collects data through the Chinese experimental platform "Jianshu". The experiment adopts a 2 (information source type: KOL recommendation vs. ordinary user recommendation) × 2 (product involvement: high vs. low) between-group experimental design to simulate a typical social media marketing scenario. The subjects were randomly assigned to one of the four experimental groups to ensure inter-group balance and internal validity. This experimental design is widely used in consumer behavior research, particularly in the context of social media. It can effectively identify the change path of both the main effect and the moderating effect.

As a well-known online experimental platform in China, Jianshu is aimed at social media users in mainland China. It has the advantages of a broad audience base and a perfect sample screening mechanism. In recent years, it has been widely used in empirical research in the field of behavior and marketing. This study distributed recruitment questionnaires to active social media users aged 18 and above through the platform. The subjects were required to read simulated social media content, including product recommendation information posted by KOL or ordinary users, along with descriptions of high- or low-involvement products, to create a brand communication scenario that closely approximated reality.

After completing the situational reading, the subjects filled out a questionnaire measuring purchase intention, brand familiarity, frequency of social media use, frequency of e-commerce platform use, and demographic variables. Among them, key variables such as purchase intention were quantified using a 7-point Likert rating scale, a widely used psychological measurement tool in current social science research, which can effectively reflect the intensity and tendency of the subjects' attitudes towards the content of the statement [8]. During the data screening stage, the research team eliminated invalid samples (such as those with abnormal answering times, incomplete answers, or careless answers), and ultimately obtained 232 valid questionnaires, which provide a good representativeness and analysis basis, as shown in Table 1.

**Table 1.** Study variables and measurement scales

| Variable Types | Variable Name | Definition | Operational Definition / Measurement | Measurement scale |
|---|---|---|---|---|
| Independent Variable | Type of information source | KOL recommendation or ordinary user recommendation | The subjects were randomly assigned to read content recommended by KOLs or ordinary users | Nominal variables |
| Moderating variables | Product Involvement | Consumers' attention to products and depth of involvement | Designing high-involvement vs. low-involvement scenarios | Nominal variables |
| Dependent Variable | Purchase intention | Consumers' intention to purchase the product | "Are you interested in purchasing this product? "Using a 7-point Likert scale | Continuous variable ( 1-7 ) |
| Control variables | Frequency of platform use | users using social platforms/e-commerce platforms | "How many times do you use the following platforms every day?" (Xiaohongshu, JD.com, etc.) | Ordinal variables |
| Control variables | User characteristics | Basic demographic information of participants | The questionnaire asked questions such as age and gender. | Categorical variables |
| Control variables | Product Familiarity | The degree of users' awareness and understanding of the displayed products | "How familiar are you with this product?" using a 7-point Likert scale | Continuous variable ( 1-7 ) |

## 3.2 Results analysis

**Table 2.** Analysis of variance and homogeneity test

| Source | SS | df | MS | F | Prob > F | Bartlett's chi2(3) | Prob > chi2 |
|---|---|---|---|---|---|---|---|
| Between groups | 6.744921 | 3 | 2.248307 | 1.31 | 0.2731 | 3.2107 | 0.36 |
| Within groups | 390.6144 | 227 | 1.720768 | | | | |
| Total | 397.3593 | 230 | 1.727649 | | | | |

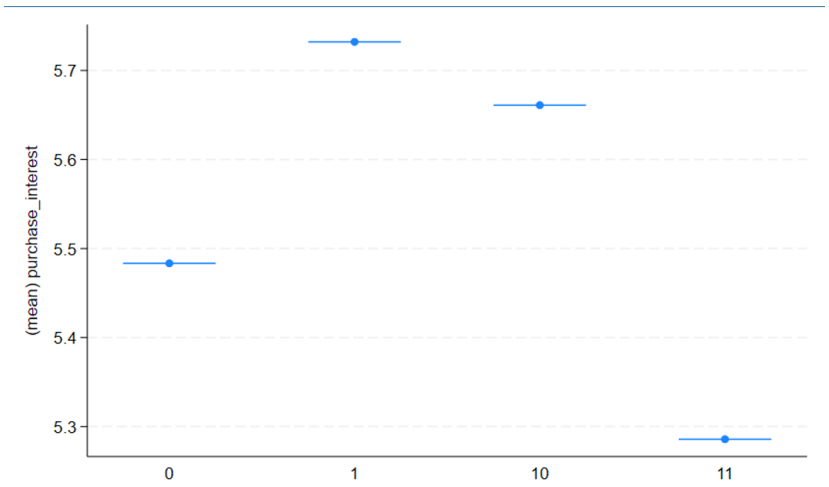


**Fig. 1.** Results group means of purchase intention with 95% confidence intervals

To explore the impact of information source type and product involvement on consumer purchase intention, this paper employed a two-way ANOVA to analyze the experimental group data across the four scenarios, as shown in Table 2. The results showed that the main effect of information source type ($F \approx 0.52$, $p \approx 0.4722$), the main effect of product involvement ($F \approx 0.13$, $p \approx 0.7214$), and the interaction between the two ($F \approx 0.32$, $p \approx 0.7235$) did not reach a significant level. Although the statistical results are not significant, it can be seen from the comparison of the four groups of means shown in Figure 1 that, in the context of ordinary user recommendation, the average purchase interest of high-involvement products is higher than that of low-involvement products. In contrast, in the context of KOL recommendations, the opposite trend is present. This result suggests that although the interaction effect is not statistically significant, there may be specific trend changes that are worth further exploration in subsequent research.

**Table 3.** Multivariate analysis of variance summary table

| Source | Wilks' Lambda (W) | Pillai's Trace (P) | Lawley-Hotelling (L) | Roy's Root (R) | F(df1, df2) | F-value | Prob > F |
|---|---|---|---|---|---|---|---|
| Model | 0.9972 | 0.0028 | 0.0028 | 0.0028 | F(2.0, 228.0) | 0.32 | 0.7235 |
| info_source_encoded | 0.9977 | 0.0023 | 0.0023 | 0.0023 | F(1.0, 228.0) | 0.52 | 0.4722 |
| involvement_encoded | 0.9994 | 0.0006 | 0.0006 | 0.0006 | F(1.0, 228.0) | 0.13 | 0.7214 |

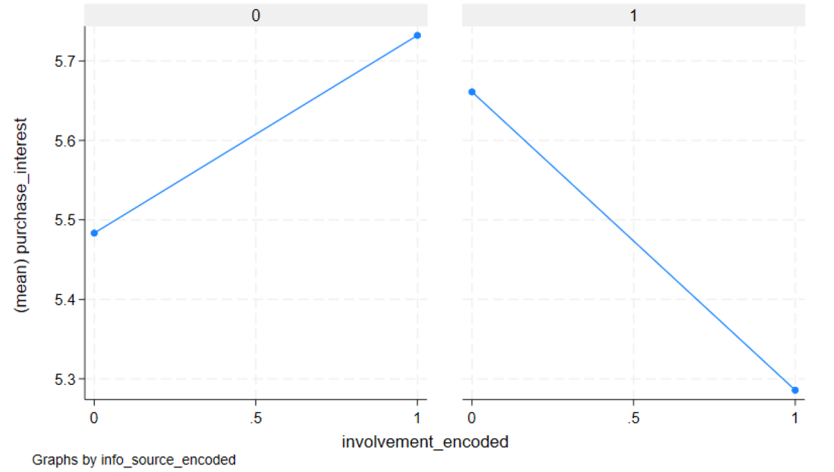


**Fig. 2.** Mean purchase intention across experimental conditions: interaction between source type and product involvement

Figure 2 further shows the interaction trend between information source type and product involvement. It can be observed that in the context of ordinary user recommendations, the higher the product involvement, the stronger the consumer's purchasing interest. Conversely, in the context of KOL recommendations, as product involvement increases, the consumer's purchasing interest tends to decrease. Although the interaction did not reach a statistically significant level ($F \approx 0.32$, $p \approx 0.7235$), it can be observed from the figure that there is a clear differentiation in the psychological response paths triggered by the two information sources for high and low involvement products, as shown in Table 3. This trend suggests that product involvement may play a moderating role in the persuasion path of different information types, which deserves further verification in future research.

**Table 4.** Linear regression coefficients for predictors of purchase intention

| Variable | Coefficient | Std. Err. | t | P>\|t\| | 95% Conf. Interval (Lower) | 95% Conf. Interval (Upper) |
|---|---|---|---|---|---|---|
| info_source_encoded | -0.10199 | 0.135864 | -0.75 | 0.454 | -0.36973 | 0.165751 |
| involvement_encoded | -0.16927 | 0.137775 | -1.23 | 0.221 | -0.44078 | 0.102233 |
| sns_use_freq_encoded | 0.079648 | 0.086966 | 0.92 | 0.361 | -0.09173 | 0.251029 |
| ecommerce_use_freq_encoded | -0.22524 | 0.082753 | -2.72 | 0.007 | -0.38832 | -0.06216 |
| gender_encoded | -0.01202 | 0.137137 | -0.09 | 0.926 | -0.28227 | 0.258234 |
| age_encoded | 0.022184 | 0.011875 | 1.86 | 0.064 | -0.00126 | 0.04554 |
| brand_familiarity | 0.604665 | 0.050474 | 11.85 | 0 | 0.504074 | 0.705257 |
| _cons | 1.973715 | 0.507077 | 3.89 | 0 | 0.97444 | 2.972991 |

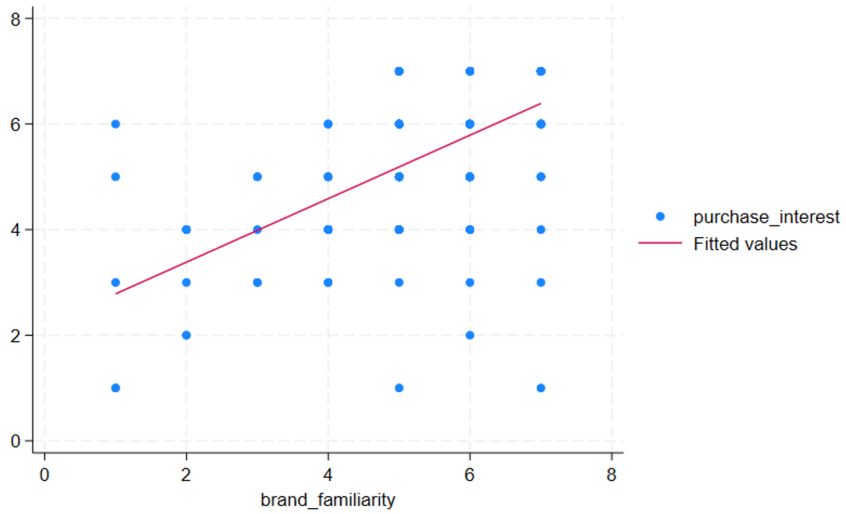


**Fig. 3.** Scatter plot of brand familiarity and purchase intention

To further identify other factors that may affect consumers' purchasing interest, this paper introduces variables such as brand familiarity and e-commerce usage frequency as control items and conducts multivariate regression analysis, as shown in Table 4. The results show that brand familiarity has a significant positive impact on purchasing interest ( $\beta = 0.605$, $p < 0.001$); that is, the more familiar consumers are with the brand, the stronger their purchasing interest. This finding is consistent with existing research, which indicates that brand familiarity enhances brand perception and reduces uncertainty in purchasing decisions, thereby significantly increasing consumers' purchasing intentions [9]. On the other hand, the frequency of e-commerce platform use has a significant negative impact on purchasing interest ( $\beta = -0.225$, $p = 0.007$), indicating that users who frequently use e-commerce platforms may be more alert to marketing information or more challenging to persuade. This result is also consistent with the research results on advertising fatigue. Consumers may become bored and resistant after prolonged and frequent exposure to advertising information, thereby reducing the effectiveness of marketing [10]. Figure 3 shows the linear relationship between brand familiarity and purchasing interest. The regression fitting line in the figure exhibits an upward trend, further verifying the statistical findings from the regression analysis.

## 4 Conclusion

This study examined the impact of information source type (KOL vs. ordinary user) and product involvement (high vs. low) on consumer purchase intention using a $2 \times 2$ between-subjects experimental design. The results showed that the main effects of both and the moderating effect of product involvement on the impact of information source did not reach a significant level, indicating that in social media marketing, the effects of these variables on consumer interest may be constrained by specific contexts or product types. On the contrary, brand familiarity showed a significant positive relationship with purchase interest. In contrast, the frequency of use of e-commerce platforms showed an adverse effect, suggesting that brand awareness and user stickiness play a more direct role in stimulating purchase intention.

This finding suggests that when formulating content marketing strategies, companies should focus more on building their long-term brand image and fostering consumer trust, rather than relying unthinkingly on the selection of information sources. At the same time,

for users who frequently encounter e-commerce content, promotional methods that are overly repetitive and emotionally stimulating should be avoided to reduce their psychological resistance to advertising content.

Future research can further explore the moderating role of consumers' trust in information sources and perceived risk levels in the decision-making process. Suppose consumers lack trust or perceive a high risk in information exposure. In that case, it is often more difficult for them to establish positive brand associations, thereby weakening their willingness to make a purchase. In addition, trust not only affects the initial decision but may also determine whether users continue to pay attention and make repeat purchases, which has important implications for optimizing social media marketing strategies. Since the sample of this study is concentrated on social media users in mainland China, the applicability of its conclusions in other cultural or market contexts still needs to be further verified.

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